

## REMARKS

The Applicant has filed the present Response in reply to the outstanding Official Action of May 22, 2006, and the Applicant believes the Response to be fully responsive to the Official Action for the reasons set forth below in greater detail.

At the onset, Applicant would like to thank the Examiner for indicating that Claims 12 and 13 are allowed and Claim 6 has allowable subject matter.

Claims 1-5, and 7-11 are rejected under 35 U.S.C. § 102 (e) as being anticipated by Segawa, U.S. Patent Pub 2003/0184378. Applicant respectfully disagrees with the rejection and traverses with at least the following analysis.

Independent Claims 1 and 5 recite an inductor and a variable capacitor as features.

Applicant submits that the reference fails to teach the claimed variable capacitor. Segawa discloses a differential amplifier including a resonant circuit each having a variable inductor and a capacitor. **The capacitance of the capacitor is a fixed value**, and a variable inductor changes the frequency characteristics.

The reference teaches that the variable inductors (active inductor) includes a capacitor 14\_13; however, it neither teaches nor suggests that the capacitor is variable. Specifically, the reference describes “the inductance L of the active inductor 14\_1 can be set to an arbitrary value by adjusting the capacitance value  $C_L$  of the capacitor 14\_13”. See Para. 0068. At best, this description suggests that the capacitance value of the capacitor can be adjusted in the design phase, rather than teaching or suggesting that the capacitance value is a “variable capacitance”.

If anything, Segawa describes that “transconductance gm of the transconductance circuit of the active inductor 14\_1, 15\_1 can be arbitrarily adjusted by an external signal, and therefore,

the inductance L can be arbitrarily changed” See Paragraph 0078. Thus, the reference teaches that the inductance L of the active inductor is changed by changing the transconductance of the transconductance circuit.

In contrast, the claimed invention includes a resonance portion of the resonant circuit comprising an inductor and a variable capacitor and the frequency characteristics are changed by controlling the value of the variable capacitor. Therefore, the claimed invention and the cited reference are both structurally different and fundamentally different in principle operation. Tellingly, Segawa does not teach that the frequency characteristics are changed by controlling the value of the variable capacitor, rather the frequency characteristics are controlled by changing the inductance.

Accordingly, Applicant submits that the differential amplifier including resonant circuits, each with an active inductor whose inductance can be changed by changing the transconductance of a transconductance circuit and a capacitor as described in Segawa, does not teach the claimed amplifier circuit including a resonant circuit comprising an inductor and a variable capacitor.

Therefore, Segawa fails to teach, suggest or render obvious, each and every limitation of Claims 1 and 5; therefore, Claims 1 and 5 are patentably distinct from the cited reference.

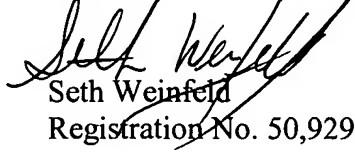
Claims 2-4, and 7-11 are patentably distinct from the reference based at least upon their dependency, whether directly or indirectly, from Claims 1 and 5, respectively, in view of the above-identified analysis.

For all the foregoing reasons, the Applicant respectfully requests the Examiner to withdraw the rejection of Claims 1-5, and 7-11 pursuant to 35 U.S.C. § 102 (e).

In conclusion, the Applicant believes that the above-identified application is in condition for allowance and henceforth respectfully solicits the Examiner to allow the application. If the

Examiner believes a telephone conference might expedite the allowance of this application, the Applicant respectfully requests that the Examiner call the undersigned, Applicant's attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,

  
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